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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,908	07/31/2003	Zhongping Yang	P-11343.00	9633

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MEDTRONIC, INC.
710 MEDTRONIC PARKWAY NE
MS-LC340
MINNEAPOLIS, MN 55432-5604

EXAMINER

NATNITHADHA, NAVIN

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,908

Applicant(s)

YANG, ZHONGPING

Examiner

Navin Natnithithadha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02072005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In the specification, paragraph 008 was amended.

Drawings

2. The drawings were received on 22 March 2005. These drawings are acceptable.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tremblay et al, US 5,704,352 A.

In regards to claim 1, Tremblay teaches an implantable sensor 10 (see fig. 1 and col. 4, line 35) comprising: a "biosensor" (transducers/sensors) 12; an "integrated circuit" (integrated circuit components, i.e. microprocessor 16 and modulator 24, of the transponder) 14 coupled to the biosensor 12 (see col. 5, lines 6-17); and a "power receiver" (power converter) 22 coupled with the integrated circuit 14 and configured to rectify RF energy incident on the implantable sensor 10 into power deliverable to the biosensor 12 and the integrated circuit 14 (see col. 5, lines 58-61, and col. 6, lines 5-9).

As to claim 2, Tremblay teaches an "antenna" 20 coupled to the integrated circuit 14 and a modulator 24 (component of the transponder 14 and coupled to microprocessor 16) for modulating data output from the biosensor 12 into a signal and transmits the signal through the antenna 20 (see fig. 1, col. 5, lines 62-67, and col. 6, lines 10-29).

As to claims 3 and 4, Tremblay teaches an "external interrogator" 15 (see fig. 1 and col. 4, lines 49-51), including: an "RF power source" (oscillator) 26 (see col. 6, lines 36-43), a "data acquisition module" (demodulator) 32.

As to claims 5-10, Tremblay teaches the biosensor 12 may include pressure transducers, temperature sensors, pH sensors, blood sugar sensors, blood oxygen sensors, or any other type of physiological sensing, monitoring or measuring devices responsive to motion, flow, velocity, acceleration, force, strain, acoustics, moisture, osmolarity, light, turbidity, radiation, electromagnetic fields, chemicals, ionic, or enzymatic quantities or changes.

In regards to claim 11, Tremblay teaches the elements of the claimed apparatus (see discussion of claim 1 above) including a "means for controlling the biosensor (microprocessor) 16 (see col. 5, lines 25-33).

In regards to claim 12, Tremblay teaches "injecting" (implanting) the biosensor 10; "placing an interrogator adjacent the tissue" (see fig. 1); "transmitting RF energy towards" the biosensor 10 (externally generating an interrogation signal generated by an interrogator 15); and "converting the RF energy into a DC power source" and

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“utilizing the DC power source to power biosensor” (converting the electromagnetic energy to a current signal for powering the microprocessor 16) (see col. 6, lines 5-9).

As to claims 13 and 14, Tremblay teaches “modulating the data” within the biosensor 10 and “transmitting data” from the biosensor 10 to the interrogator 15 (see col. 5, lines 18-33 and 46-61, and col. 6, lines 10-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tremblay et al, US 5,704,352 A, as applied to claim 12 above, and further in view of Brockway et al, US 6,409,674 B1.


As to claim 15-17, Tremblay does not teach delivering the device through a syringe and delivering the medical device 32 into the heart, specifically the coronary sinus or right ventricle of the heart. However, Brockway teaches implanting a similar device into a heart chamber by using a catheter (syringe) 600 (see figs. 6 and 7, and col. 3, line 65-67). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Tremblay's invention to be implanted into a heart chamber using a catheter in order to pressure, glucose or blood gasses as suggested by Brockway (see col. 14, lines 61-67).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navin Natnithithadha whose telephone number is (571) 272-4732. The examiner can normally be reached on Monday-Friday, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Navin Natnithithadha
Patent Examiner
GAU 3736
20 May 2005